

Close doublet structures in ^{103}Mo , $^{109,111}\text{Ru}$, and neighbors: rotation-alignment for the half-filled $h_{11/2}$ subshell? *

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Several new γ -transitions are assigned to ^{103}Mo and $^{109,111}\text{Ru}$ in a γ - γ - γ coincidence study from the spontaneous fission of ^{252}Cf with 72 Compton suppressed Ge detectors in Gammasphere. A close doublet structure of an odd-parity band except near its bandhead is a common feature not only of the nuclei studied here but of many others with $61 \leq N \leq 67$. This doublet structure may be a general consequence of rotation alignment for configurations of half-filled j-shells, which are only weakly coupled to the deformed shapes.

Footnotes and References

* For further details see this paper, published as Letter to the Editor, J. Phys. G: Nucl. Part. Phys. **24** (1998) L9

For GANDS95 list of authors and institutions see B.R.S. Babu et al., Phys. Rev. **C54 (1996) 568